

INTRODUCTION TO ENGINEERING ETHICS WITH ROTATING MACHINERY CASE STUDIES

Robert X. Perez

Staff Reliability Engineer

Enterprise Products Inc., San Antonio, TX, USA



Robert Perez is a Senior Staff Engineer for Enterprise Products, Inc., in San Antonio, TX. He has more than 30 years of industrial rotating equipment experience and has numerous technical articles to his credit. Mr. Perez holds a BSME degree from Texas A&M University at College Station, a MSME degree from the University of Texas at Austin, and a Texas PE license. He is a past member of the Turbomachinery Advisory Committee.

ABSTRACT

Most states now require professional engineers to regularly study engineering ethics. Texas, for example, requires one hour of engineering ethics training every year. Most engineering ethics instruction tends to be extremely general and therefore difficult to apply to actual work activities and interactions. To make this instruction meaningful to rotating machinery professionals attending the Turbomachinery Symposium, it was believed that relevant ethics case studies were needed. To achieve this aim, the tutorial leader asked experienced colleagues to contribute real-world machinery ethics case studies they had encountered. The presenters wish to satisfy the state's requirements for study at the symposium by presenting a combination of basic ethics theory and real-world machinery ethics examples. It is hoped that attendees will be able to apply the basic knowledge gained at the tutorial when coping with ethical issues they will likely encounter in their current and future assignments.

TUTORIAL OUTLINE

- Introduction into Engineering Ethics
- National Society of Professional Engineers (NSPE) Codes of Ethics
- Famous Engineering Disasters
- Ethics Theories
- Rotating Equipment Case Studies

REFERENCES:

- Fleddermann, Charles B, *Engineering Ethics*, 3rd Ed., 2008, Pearson Prentice Hall
- NSPE Code (detailed) referenced from: <http://www.nspe.org/Ethics/CodeofEthics/index.html>

Other websites:

- http://professionalpractice.asme.org/Transition/Ethics/Canon_1.cfmhttp://www.niece.org/murdoughCenter/
- <http://www.niece.org/murdoughCenter/http://www.tbpe.state.tx.us/links.htm-ethics>
- <http://www.tbpe.state.tx.us/links.htm#ethics>